08/819,669
APS
DIALOG
updated
12/8/98

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TERMINAL (ENTER 1, 2, 3, 4, OR ?):□3


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FILE 'USPAT' ENTERED AT 14:38:08 ON 08 DEC 1998
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  *                  W E L C O M E   T O   T H E                  *
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=> s MAGE-1\

            227 MAGE
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=> s MAGE-1

            227 MAGE
        2385384 1
L1           55 MAGE-1
                (MAGE(W)1)

=> s l1 and MAGE?/clm

           4328 MAGE?/CLM
L2           16 L1 AND MAGE?/CLM

=> t l2 1-16
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1. 5,843,448, Dec. 1, 1998, Tumor rejection antigen precursor; Yao-Tseng Chen, et al., 424/185.1, 277.1; 530/327, 328, 350, 395 [IMAGE AVAILABLE]

2. 5,830,753, Nov. 3, 1998, Isolated nucleic acid molecules coding for tumor rejection antigen precursor dage and uses thereof.; Pierre Coulie, et al., 435/325, 69.1, 252.3, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

3. 5,827,073, Oct. 27, 1998, Photoreactive peptide derivatives; Immanuel Luescher, et al., 435/7.24, 68.1, 196; 436/501, 545; 530/345 [IMAGE AVAILABLE]

4. 5,763,165, Jun. 9, 1998, Method for determining lung adenocarcinomas by assaying for one or more of **MAGE-1**, MAGE-2 and MAGE-3; Thierry Boon-Falleur, et al., 435/6, 91.2 [IMAGE AVAILABLE]

5. 5,763,155, Jun. 9, 1998, Method for determining lung adenocarcinomas by assaying for one or more of **MAGE-1**, MAGE-2 and MAGE-3 gene products; Thierry Boon-Falleur, et al., 435/4, 7.1, 7.23 [IMAGE AVAILABLE]

6. 5,759,783, Jun. 2, 1998, Method of screening for cancer by detecting messenger RNA for a MAGE-XP gene; Christophe Lurquin, et al., 435/6, 91.2; 536/24.33 [IMAGE AVAILABLE]

7. 5,662,907, Sep. 2, 1997, Induction of anti-tumor cytotoxic T lymphocytes in humans using synthetic peptide epitopes; Ralph T. Kubo, et al., 424/195.1, 193.1, 197.11, 277.1; 530/300, 328, 403 [IMAGE AVAILABLE]

8. 5,629,166, May 13, 1997, Method for identifying individuals suffering from a cellular abnormality some of whose abnormal cells present complexes of HLA-C-clone 10/**MAGE-1** derived peptides, and methods for treating said individuals; Pierre van der Bruggen, et al., 435/7.23, 6, 7.21; 436/64 [IMAGE AVAILABLE]

9. 5,612,201, Mar. 18, 1997, Isolated nucleic acid molecules useful in determining expression of a tumor rejection antigen precursor; Etienne De Plaen, et al., 435/91.2, 6; 536/23.1, 24.33 [IMAGE AVAILABLE]

10. 5,610,013, Mar. [redacted] 1997, Method for diagnosing [redacted]isorder by determining expression of gage tumor rejection antigen precursors; Benoit Van den Eynde, et al., 435/6, 7.1, 252.3, 252.33, 320.1, 325, 358, 362, 365; 536/23.5 [IMAGE AVAILABLE]

11. 5,587,289, Dec. 24, 1996, Isolated nucleic acid molecules which are members of the MAGE-Xp family and uses thereof; Christophe Lurquin, et al., 435/6, 252.3, 320.1, 325; 536/23.1 [IMAGE AVAILABLE]

12. 5,571,711, Nov. 5, 1996, Isolated nucleic acid molecules coding for BAGE tumor rejection antigen precursors; Pierre van der Bruggen, et al., 435/365, 69.3, 252.3, 320.1; 536/23.5 [IMAGE AVAILABLE]

13. 5,541,104, Jul. 30, 1996, Monoclonal antibodies which bind to tumor rejection antigen precursor **mage-1**; Yao-Tseng Chen, et al., 435/344.1; 424/138.1, 155.1, 174.1; 435/69.6, 70.21; 530/350, 387.7, 388.8 [IMAGE AVAILABLE]

14. 5,512,444, Apr. 30, 1996, Method for determining bladder tumors by assaying for MAGE-1,2,3 or 4; Jean-Jacques Patard, et al., 435/6, 7.1, 7.9, 91.2; 536/23.1, 24.3 [IMAGE AVAILABLE]

15. 5,512,437, Apr. 30, 1996, Method for determining head and neck squamous cell carcinomas, prostate carcinomas, and bladder tumors by assaying for mage-3; Beatrice Gaugler, et al., 435/6, 7.1, 7.9, 91.2; 536/23.1, 24.3 [IMAGE AVAILABLE]

16. 5,342,774, Aug. 30, 1994, Nucleotide sequence encoding the tumor rejection antigen precursor, **MAGE-1**; Thierry Boon, et al., 435/371, 69.1, 69.3, 235.1, 252.3, 320.1; 530/350; 536/23.5 [IMAGE AVAILABLE]

=> s l1 not l2

L3 39 L1 NOT L2

=> t l3 1-39

1. 5,846,827, Dec. 8, 1998, Methods for ex vivo therapy using peptide-loaded antigen presenting cells for the activation of CTL; Esteban Celis, et al., 435/384; 424/93.1, 93.7, 93.71; 435/325, 386 [IMAGE AVAILABLE]

2. 5,844,075, Dec. 1, 1998, Melanoma antigens and their use in diagnostic and therapeutic methods; Yutaka Kawakami, et al., 530/326, 327, 328, 329, 330 [IMAGE AVAILABLE]

3. 5,843,994, Dec. 1, 1998, Compositions and methods for treating and preventing pathologies including cancer; Dvorit Samid, 514/510, 513, 515, 529, 538, 563, 567 [IMAGE AVAILABLE]

4. 5,843,648, Dec. 1, 1998, P15 and tyrosinase melanoma antigens and their use in diagnostic and therapeutic methods; Paul F. Robbins, et al., 435/6, 7.1, 7.2, 7.9, 69.1, 91.2, 252.3, 254.2, 320.1 [IMAGE AVAILABLE]

5. 5,840,568, Nov. 24, 1998, Hodgkin's disease associated molecules and uses thereof; Michael Pfreundschuh, 435/252.3, 320.1; 436/94; 536/23.1, 23.5, 24.31 [IMAGE AVAILABLE]

6. 5,837,476, Nov. 17, 1998, Methods for determining disorders by assaying for a non-tyrosinase, tumor rejection antigen precursor; Vincent Brichard, et al., 435/7.23; 424/93.71, 93.72; 435/7.1, 7.24; 514/12; 530/350; 536/23.5 [IMAGE AVAILABLE]

7. 5,834,441, Nov. 10, 1998, Adeno-associated viral (AAV) liposomes and methods related thereto; Ramila Philip, et al., 514/44; 424/93.21, 450; 435/69.1, 320.1, 325; 536/24.1 [IMAGE AVAILABLE]

8. 5,833,975, Nov. 10, 1998, Canarypox virus expressing cytokine and/or tumor-associated antigen DNA sequence; Enzo Paoletti, et al., 424/93.2; 435/320.1 [IMAGE AVAILABLE]

9. 5,811,519, Sep. 22, 1998, LL-1 tumor specific genes; Bernard Lethe , et al., 530/350; 536/23.5 [IMAGE AVAILABLE]

10. 5,807,978, Sep. 15, 1998, Immunogenic peptides of prostate specific antigen; William J. Kokolus, et al., 530/300; 424/184.1, 185.1, 277.1; 530/326, 327, 403 [IMAGE AVAILABLE]

11. 5,798,264, Aug. 25, 1998, Isolated nucleic acid molecules which encode renal cancer specific antigens, and uses thereof; Michael Pfreundschuh, 435/326, 320.1, 325; 536/23.5 [IMAGE AVAILABLE]

12. 5,783,567, Jul. 21, 1998, Microparticles for delivery of nucleic acid; Mary Lynne Hedley, et al., 514/44; 435/320.1; 536/23.1 [IMAGE AVAILABLE]

13. 5,772,995, Jun. 30, 1998, Compositions and methods for enhanced tumor cell immunity in vivo; Habib Fakhrai, et al., 424/93.21; 435/6, 7.23, 69.1, 91.1, 91.4, 325; 530/389.7 [IMAGE AVAILABLE]

14. 5,759,535, Jun. 2, 1998, Immunotherapeutic strategies for the treatment of cancer; Edward P. Cohen, 424/93.21; 435/69.1, 320.1 [IMAGE AVAILABLE]

15. 5,750,395, May 12, 1998, DNA encoding **MAGE-1** C-terminal cytotoxic t lymphocyte immunogenic peptides; John D. Fikes, et al., 435/325, 69.3, 252.3, 254.2, 320.1; 536/23.5 [IMAGE AVAILABLE]

16. 5,744,353, Apr. 28, 1998, Cytolytic T cell lines which bind to complexes of tumor rejection antigens and HLA-B44 molecules; Jean Herman, et al., 435/325, 372.3 [IMAGE AVAILABLE]

17. 5,736,142, Apr. 7, 1998, Alteration of immune response using pan DR-binding peptides; Alessandro Sette, et al., 424/185.1, 184.1, 193.1; 514/2, 15; 530/300, 327, 332, 868 [IMAGE AVAILABLE]

18. 5,712,307, Jan. 27, 1998, Methods of inducing the production of hemoglobin and treating pathologies associated with abnormal hemoglobin activity using phemylacetic acids and derivatives therof; Dvorit Samid, 514/538, 563, 567 [IMAGE AVAILABLE]

19. 5,710,178, Jan. 20, 1998, Compositions and methods for therapy and prevention of pathologies including cancer, AIDS, and anemia; Dvorit Samid, 514/557, 568, 570 [IMAGE AVAILABLE]

20. 5,708,025, Jan. 13, 1998, Methods for promoting wound healing; Dvorit Samid, 514/538, 563, 567, 885, 886, 928 [IMAGE AVAILABLE]

21. 5,698,396, Dec. 16, 1997, Method for identifying auto-immunoreactive substances from a subject; Michael Pfreundschuh, 435/6, 5, 7.1, 7.23 [IMAGE AVAILABLE]

22. 5,695,994, Dec. 9, 1997, Isolated cytolytic T cells specific for complexes of MAGE related peptides and HLA molecules; Thierry Boon-Falleur, et al., 435/325, 355, 372.3; 530/328 [IMAGE AVAILABLE]

23. 5,686,068, Nov. 11, 1997, Isolated peptides derived from MAGE-2, cytolytic T cells specific to complexes of peptide and HLA-A2 molecules, and uses thereof; Cornelius J. M. Melief, et al., 424/93.71, 185.1,

277.1; 435/7.23, 325, 372.3; 530/328, 828 [IMAGE AVAILABLE]

24. 5,683,886, Nov. 4, 1997, Tumor rejection antigens which correspond to amino acid sequences in tumor rejection antigen precursor bage, and uses thereof; Pierre van der Bruggen, et al., 435/7.24; 424/93.71, 277.1; 435/7.1, 7.23; 530/324, 325, 326, 327, 328, 329, 330 [IMAGE AVAILABLE]

25. 5,674,749, Oct. 7, 1997, Monoclonal antibodies which bind to tumor rejection antigen precursor melan-A, and uses thereof; Yao-tseng Chen, et al., 435/344.1; 530/388.1, 388.85 [IMAGE AVAILABLE]

26. 5,661,179, Aug. 26, 1997, Methods for treating neoplastic conditions using phenylacetic acid and derivatives thereof; Dvorit Samid, 514/538, 563, 567; 560/19 [IMAGE AVAILABLE]

27. 5,654,333, Aug. 5, 1997, Methods for prevention of cancer using phenylacetic acids and derivatives thereof; Dvorit Samid, 514/538, 563, 567 [IMAGE AVAILABLE]

28. 5,648,226, Jul. 15, 1997, Isolated peptides derived from tumor rejection antigens, and their use; Benoit Van den Eynde, et al., 435/7.24; 424/185.1, 277.1; 435/7.23; 530/326, 327, 328, 828 [IMAGE AVAILABLE]

29. 5,635,533, Jun. 3, 1997, Methods for inducing differentiation of a cell using phenyacetic acid and derivatives; Dvorit Samid, 514/538, 563, 567 [IMAGE AVAILABLE]

30. 5,635,532, Jun. 3, 1997, Compositions and methods for therapy and prevention of pathologies including cancer, AIDS and anemia; Dvorit Samid, 514/538, 563, 567; 560/19 [IMAGE AVAILABLE]

31. 5,620,886, Apr. 15, 1997, Isolated nucleic acid sequence coding for a tumor rejection antigen precursor processed to at least one tumor rejection antigen presented by HLA-A2; Vincent Brichard, et al., 435/325, 7.23, 29, 252.3, 320.1; 514/44; 530/350; 536/22.1, 23.1, 23.5 [IMAGE AVAILABLE]

32. 5,605,930, Feb. 25, 1997, Compositions and methods for treating and preventing pathologies including cancer; Dvorit Samid, 514/510, 513, 515, 529, 538, 563, 567 [IMAGE AVAILABLE]

33. 5,591,430, Jan. 7, 1997, Isolated, MAGE-3 derived peptides which complex with HLA-A2 molecules and uses thereof; Alan Townsend, et al., 424/93.71, 185.1, 277.1; 435/7.24, 372.3; 530/328, 395, 828 [IMAGE AVAILABLE]

34. 5,585,461, Dec. 17, 1996, Isolated, MAGE-3 derived peptides which complex with HLA-A2 molecules and uses thereof; Alan Townsend, et al., 530/328; 424/185.1; 530/300, 395, 865 [IMAGE AVAILABLE]

35. 5,558,995, Sep. 24, 1996, Peptides which are derived from tumor rejection antigen precursor molecule **MAGE-1**, which complex to MHC molecule HLA-C clone 10, and uses thereof; Pierre van der Bruggen, et al., 435/7.24; 424/185.1, 277.1; 435/372.3; 530/326, 327, 328, 828 [IMAGE AVAILABLE]

36. 5,554,724, Sep. 10, 1996, Isolated tumor rejection antigen precursor MAGE-2 derived peptides, and uses thereof; Cornelis J. M. Melief, et al., 530/328; 424/185.1, 277.1; 530/300, 327, 828 [IMAGE AVAILABLE]

37. 5,554,506, Sep. 10, 1996, Isolated, MAGE-3 derived peptides which complex with HLA-A2 molecules and uses thereof; Pierre van der Bruggen, et al., 435/7.24; 424/185.1, 193.1, 273.1; 435/372.3; 514/2, 15; 530/300, 328, 828 [IMAGE AVAILABLE]

38. 5,462,871, Oct. 31, 1995, Isolated nucleic acid molecules which encode MAGE derived n[redacted]peptides; Thierry Boon-Falleu[redacted]et al., 435/354, 252.3, 365; 536/23.1, 23.5 [IMAGE AVAILABLE]

39. 5,405,940, Apr. 11, 1995, Isolated nonapeptides derived from MAGE genes and uses thereof; Thierry Boon, et al., 530/328; 424/185.1; 530/300 [IMAGE AVAILABLE]

=> logoff hold

SESSION WILL BE HELD FOR 30 MINUTES
U.S. Patent & Trademark Office SESSION SUSPENDED AT 14:43:05 ON 08 DEC 199

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Logon file001 08dec98 14:48:37
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***MediConf (File 431) - December 1, 1998
***French Patents (File 371) - November 2, 1998
***CorpTech (File 559)
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RELOADED
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***BIOSIS Previews (File 5,55)- enhanced 11/16/98, see HELP NEWS5
***LA Times (File 630)
***Medical Device Register (File 167)
***Healthcare Organizations (File 168)
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***MoneyCenter (MONEY) to be removed effective 11/1/98
***Financial Times Fulltext (File 622)
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DIALINDEX
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□dialog
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     >>>    Announcements last updated 23 November 98  <<<
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     $0.31  Estimated cost File1
            FTSNET   0.016 Hrs.
     $0.31  Estimated cost this search
     $0.31  Estimated total session cost   0.095 DialUnits

File 410:Chronolog(R)  1981-1998/Nov/Dec
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? b 155, 351

       08dec98 14:48:54 User208709 Session D428.2
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     $0.00  Estimated cost File410
            FTSNET   0.002 Hrs.
     $0.00  Estimated cost this search
     $0.31  Estimated total session cost   0.136 DialUnits

SYSTEM:OS  - DIALOG OneSearch
  File 155:MEDLINE(R)  1966-1998/Dec W4
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  File 351:DERWENT WPI  1963-1998/UD=9848;UP=9845;UM=9843
         (c)1998 Derwent Info Ltd
*File 351: Effective October 1, DialUnit rates adjusted for unrounding.
See HELP NEWS 351 for details.

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      S1    141  MAGE(W)1
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            141  S1
        2930678  PY>1995
      S2     62  S1 NOT PY>1995
? s s2 not py>1992

Processing
             62  S2
        5392790  PY>1992
      S3      3  S2 NOT PY>1992
? t s3/7/1-3


 3/7/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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07385991   93052876
  Human gene MAGE-1, which codes for a tumor-rejection antigen,
is expressed by some breast tumors [letter]
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Brasseur F; Marchand M; Vanwijck R; Herin M; Lethe B; Chomez P; Boon T
Int J Cancer (UNITED STATES) Nov 11 1992, 51 (5) p839-41, ISSN 0020-7136 Journal Code: GQU
Languages: ENGLISH
Document type: LETTER

3/7/2 (Item 2 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
(c) format only 1998 Dialog Corporation. All rts. reserv.

07177873 93018875
A nonapeptide encoded by human gene **MAGE-1** is recognized on HLA-A1 by cytolytic T lymphocytes directed against tumor antigen MZ2-E.
Traversari C; van der Bruggen P; Luescher IF; Lurquin C; Chomez P; Van Pel A; De Plaen E; Amar-Costesec A; Boon T
Ludwig Institute for Cancer Research, Brussels Branch, Belgium.
J Exp Med (UNITED STATES) Nov 1 1992, 176 (5) p1453-7, ISSN 0022-1007 Journal Code: I2V
Languages: ENGLISH
Document type: JOURNAL ARTICLE
We have reported the identification of human gene **MAGE-1**, which directs the expression of an antigen recognized on a melanoma by autologous cytolytic T lymphocytes (CTL). We show here that CTL directed against this antigen, which was named MZ2-E, recognize a nonapeptide encoded by the third exon of gene **MAGE-1** . The CTL also recognize this peptide when it is presented by mouse cells transfected with an HLA-A1 gene, confirming the association of antigen MZ2-E with the HLA-A1 molecule. Other members of the MAGE gene family do not code for the same peptide, suggesting that only **MAGE-1** produces the antigen recognized by the anti-MZ2-E CTL. Our results open the possibility of immunizing HLA-A1 patients whose tumor expresses **MAGE-1** either with the antigenic peptide or with autologous antigen-presenting cells pulsed with the peptide.

3/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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06933714 92086861
A gene encoding an antigen recognized by cytolytic T lymphocytes on a human melanoma.
van der Bruggen P; Traversari C; Chomez P; Lurquin C; De Plaen E; Van den Eynde B; Knuth A; Boon T
Ludwig Institute for Cancer Research, Brussels, Belgium.
Science (UNITED STATES) Dec 13 1991, 254 (5038) p1643-7, ISSN 0036-8075 Journal Code: UJ7
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Many human melanoma tumors express antigens that are recognized in vitro by cytolytic T lymphocytes (CTLs) derived from the tumor-bearing patient. A gene was identified that directed the expression of antigen MZ2-E on a human melanoma cell line. This gene shows no similarity to known sequences and belongs to a family of at least three genes. It is expressed by the original melanoma cells, other melanoma cell lines, and by some tumor cells of other histological types. No expression was observed in a panel of normal tissues. Antigen MZ2-E appears to be presented by HLA-A1; anti-MZ2-E CTLs of the original patient recognized two melanoma cell lines of other HLA-A1 patients that expressed the gene. Thus, precisely targeted immunotherapy directed against antigen MZ2-E could be provided to individuals identified by HLA typing and analysis of the RNA of a small tumor sample.
? s s2 and py=1993

62 S2

992348 PY=1993
S4 8 S2 [redacted] PY=1993
? t s4/7/1-8

4/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
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07712923 94107847
Genes coding for tumor antigens recognized by human cytolytic T lymphocytes.
Coulie PG; Weynants P; Lehmann F; Herman J; Brichard V; Wolfel T; Van Pel A; De Plaen E; Brasseur F; Boon T
Ludwig Institute for Cancer Research, Brussels Branch, Belgium.
J Immunother (UNITED STATES) Aug **1993**, 14 (2) p104-9, ISSN 1053-8550 Journal Code: AZ0
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
In order to define the antigens recognized by cytolytic T lymphocytes (CTLs) on autologous tumors, we derived tumor-specific CTL clones from autologous mixed lymphocyte tumor cell cultures. The gene coding for a tumor rejection antigen expressed on a melanoma was isolated by transfecting genomic DNA of the tumor into an antigen-loss variant of the melanoma. Transfectants were identified on the basis of their ability to stimulate tumor necrosis factor release by the CTL clone. The gene that transferred the expression of the antigen was named **MAGE-1**. It is a new gene, silent in normal tissues with the exception of testis, but expressed in several types of tumors. The antigen recognized by the CTL clone is a nonapeptide derived from the protein encoded by gene **MAGE-1** , and presented by the HLA class I molecule HLA-A1. Using two other antimelanoma CTL clones, we identified the tyrosinase gene as coding for an antigen presented by HLA-A2 on this type of tumors. The identification of these tumor rejection antigens open new possibilities for the specific immunotherapy of cancer. (28 Refs.)

4/7/2 (Item 2 from file: 155)
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07697628 94083648
Transduction of human melanoma cell lines with the human interleukin-7 gene using retroviral-mediated gene transfer: comparison of immunologic properties with interleukin-2.
Miller AR; McBride WH; Dubinett SM; Dougherty GJ; Thacker JD; Shau H; Kohn DB; Moen RC; Walker MJ; Chiu R; et al
Division of Surgical Oncology, Jonsson Comprehensive Center, UCLA Medical Center 90024-1782.
Blood (UNITED STATES) Dec 15 **1993**, 82 (12) p3686-94, ISSN 0006-4971 Journal Code: A8G
Contract/Grant No.: R29 CA 50780, CA, NCI; P01 CA59326, CA, NCI; P30CA16042, CA, NCI; +
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Two human melanoma cell lines were transduced with the human interleukin (IL)-7 and IL-2 genes using retroviral-mediated gene transfer. Stable, high-level cytokine expression was achieved. The in vitro growth of transduced tumors was unaltered. Neither of the IL-2-transduced melanoma cell lines grew in athymic mice, whereas one IL-7-transduced melanoma line showed retarded in vivo growth. This is consistent with animal studies suggesting a predominantly T-cell response to IL-7-transduced tumors and a more nonspecific response to IL-2-transduced tumors. Both IL-7- and IL-2-transduced melanoma cell lines could induce cytotoxic lymphocytes in mixed lymphocyte-tumor cultures. The expression of putative melanoma antigens (**MAGE**)-**1** and MAGE-3 was unaltered by cytokine

transduction. In one cell line, IL-7 transduction resulted in a marked inhibition of the [redacted]unosuppressive peptide trans[redacted]rming growth factor (TGF)beta 1. The results allow a comparison of immunobiologic properties of IL-7- and IL-2-transduced human melanoma cell lines in consideration of their use in genetically engineered tumor vaccines. IL-7 transduction results in stable cytokine expression and phenotypic alterations that appear to be favorable for enhanced immunogenicity and it deserves clinical testing.

4/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07660410 94031796
A tumour-associated antigen expression in human haematological malignancies.
Chambost H; Brasseur F; Coulie P; de Plaen E; Stoppa AM; Baume D; Mannoni P; Boon T; Maraninchi D; Olive D
INSERM U119, Marseille, France.
Br J Haematol (ENGLAND) Jul **1993**, 84 (3) p524-6, ISSN 0007-1048 Journal Code: AXC
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Objective responses obtained with high-dose in vivo recombinant interleukin 2 (r-IL2) in some leukaemic patients suggest among other hypotheses that blasts might express tumour rejection antigens potentially recognized by cytolytic T lymphocytes. Such antigens have been described in human melanomas and the **MAGE-1** gene, coding for a tumour rejection antigen was recently identified. This gene is expressed in various solid tumours, but not in normal cells. We have screened a panel of haematological malignancies by reverse transcription and PCR and we report that **MAGE-1** is not expressed in the blasts from 48 patients whereas three cell lines derived from leukaemias express this gene.

4/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07613127 93378306
Genes coding for antigens recognized on human tumors by autologous cytolytic T lymphocytes.
Coulie P; Weynants P; Muller C; Lehmann F; Herman J; Baurain JF; Boon T
Ludwig Institute for Cancer Research, Brussels Branch, Belgium.
Ann N Y Acad Sci (UNITED STATES) Aug 12 **1993**, 690 p113-9, ISSN 0077-8923 Journal Code: 5NM
Languages: ENGLISH
Document type: JOURNAL ARTICLE

4/7/5 (Item 5 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07559164 93291500
Perspectives for immunization of HLA-A1 patients carrying a malignant melanoma expressing gene **MAGE-1**.
Marchand M; Brasseur F; van der Bruggen P; Coulie P; Boon T
Brussels Branch, Ludwig Institute for Cancer Research, Belgium.
Dermatology (SWITZERLAND) **1993**, 186 (4) p278-80, ISSN 1018-8665 Journal Code: BBV
Languages: ENGLISH
Document type: JOURNAL ARTICLE
Many human melanoma tumors express antigens that are recognized in vitro by cytolytic T lymphocytes derived from the tumor-bearing patient. A gene

has been identified that directs the expression of antigen MZ2-E on a human melanoma cell line. This gene, which has been named **MAGE-1**, shows no similarity to known sequences and belongs to a family of at least 3 closely related genes. Gene **MAGE-1** is expressed in approximately 40% of melanoma tumor samples and by some tumors of other histological types. No expression has been observed in a panel of normal tissues. Antigen MZ2-E appears to be presented by HLA-A1, a HLA type found in approximately 25% of the population. Thus, precisely targeted experimental immunotherapy directed against antigen MZ2-E could be provided to individuals identified as HLA-A1 and **MAGE-1** positive by HLA typing and analysis of the RNA of a small tumor sample.

4/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07555643 93285864
The human melanoma antigen-encoding gene, **MAGE-1** , is expressed by other tumour cells of neuroectodermal origin such as glioblastomas and neuroblastomas [letter]
Rimoldi D; Romero P; Carrel S
Int J Cancer (UNITED STATES) May 28 **1993**, 54 (3) p527-8, ISSN 0020-7136 Journal Code: GQU
Languages: ENGLISH
Document type: LETTER

4/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07535353 93252489
Tumor antigens recognized by cytolytic T lymphocytes: present perspectives for specific immunotherapy.
Boon T
Ludwig Institute for Cancer Research, Brussels Branch, Belgium.
Int J Cancer (UNITED STATES) May 8 **1993**, 54 (2) p177-80, ISSN 0020-7136 Journal Code: GQU
Languages: ENGLISH
Document type: JOURNAL ARTICLE; REVIEW; REVIEW, TUTORIAL
(30 Refs.)

4/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

07473891 93105416
Differential expression of **MAGE-1**, -2, and -3 messenger RNA in transformed and normal human cell lines.
Zakut R; Topalian SL; Kawakami Y; Mancini M; Eliyahu S; Rosenberg SA
Surgery Branch, National Cancer Institute, NIH, Bethesda, Maryland 20892.
Cancer Res (UNITED STATES) Jan 1 **1993**, 53 (1) p5-8, ISSN 0008-5472 Journal Code: CNF
Languages: ENGLISH
Document type: JOURNAL ARTICLE
The **MAGE-1** gene codes for a tumor-specific antigen, MZ2-E, that elicited a cytotoxic T-lymphocyte response in the melanoma patient from whom it was derived. We have developed a simplified method, using polymerase chain reaction amplification of exon 3 followed by restriction enzyme pattern analysis, to distinguish expression of the **MAGE-1** gene from MAGE-2 and MAGE-3, other members of this gene family. **MAGE-1** mRNA was expressed in 53% of 17 melanoma lines, two of seven Epstein-Barr virus-transformed B-cell lines, and 2 of 5 breast cell lines including a line established form normal breast epithelium.

MAGE-1 is not likely to be the common melanoma antigen recognized by the other HLA-A1- or HLA-A2-restricted cytotoxic T-lymphocytes examined in this study, but the fact that it is expressed in about 50% of melanoma cell lines makes it a reasonable target for the immunotherapy of patients bearing HLA-A1.

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